

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1 1. (Currently Amended) An apparatus comprising:
2 one or more housing sections providing a sealed space;
3 a first explosive element in the sealed space;
4 a cable;
5 a component to provide a signal over the cable to the first explosive element to
6 detonate the first explosive element;
7 a second explosive element having a first portion inside the sealed space, and a
8 second portion outside the sealed space exposed to outside pressure, the first explosive element
9 to initiate the second explosive element without presence of a pressure barrier between the first
10 and second explosive elements; and
11 a gripping mechanism to grip a surface of the second explosive element to
12 maintain a position of the second explosive element that is exposed to the outside pressure in an
13 axial direction of the second explosive element.

1 2. (Original) The apparatus of claim 1, wherein an inner surface of a first one of the
2 one or more housing sections is contacted to the second explosive element to provide sealing
3 engagement between the first housing section and the second explosive element.

1 3. (Original) The apparatus of claim 2, wherein the first housing section comprises a
2 boot formed of an elastic material, the boot contacted to the second explosive element.

1 4. (Original) The apparatus of claim 3, wherein the elastic material comprises an
2 elastomer.

1 5. (Original) The apparatus of claim 3, wherein the one or more housing sections
2 further comprise a hard housing section to house the first explosive element.

1 6. (Original) The apparatus of claim 5, wherein the first explosive element in the
2 hard housing section comprises a detonator explosive.

1 7. (Original) The apparatus of claim 6, wherein the second explosive element
2 comprises a detonating cord.

1 8. (Original) The apparatus of claim 7, further comprising a booster explosive
2 provided in the sealed space and ballistically connected between the detonator explosive and the
3 detonating cord.

1 9. (Original) The apparatus of claim 3, wherein the gripping mechanism comprises
2 a grip tube having an inner space through which the second explosive element extends, the grip
3 tube having a roughened inner surface to grip an outer surface of the second explosive element.

1 10. (Original) The apparatus of claim 9, wherein the gripping mechanism further
2 comprises a crimping shell to grip the second explosive element.

1 11. (Original) The apparatus of claim 10, wherein the crimping shell is adapted to
2 anchor the second explosive element at a first pressure, and the grip tube is adapted to anchor the
3 second explosive element at a second pressure, the second pressure greater than the first
4 pressure.

1 12. (Original) The apparatus of claim 11, wherein the grip tube is adapted to collapse
2 at greater than a predetermined pressure, wherein collapse of the grip tube causes the grip tube to
3 grip the second explosive element.

1 13. (Original) The apparatus of claim 10, wherein the boot comprises an inner
2 chamber in which the grip tube and crimping shell are located.

1 14. (Currently Amended) The apparatus of claim [[9]] 10, wherein the boot
2 comprises an inner chamber in which the grip tube and crimping shell are located.

1 15. (Original) The apparatus of claim 1, further comprising a well tool adapted to be
2 activated by detonation of the first and second explosive elements.

1 16. (Original) The apparatus of claim 1, further comprising a perforating gun to be
2 activated by detonation of the first and second explosive elements.

1 17 - 30. (Cancelled)

1 31. (New) The apparatus of claim 1, further comprising a third explosive element
2 between the first and second explosive elements, wherein the third explosive element is
3 contacted to the first explosive element, and the third explosive element is contacted to the
4 second explosive element.

1 32. (New) The apparatus of claim 1, wherein the component comprises an electronic
2 module.

1 33. (New) The apparatus of claim 32 wherein the electrical module is responsive to
2 input signals provided over an input cable.

1 34. (New) The apparatus of claim 1, wherein the cable comprises an electrical cable.

1 35. (New) The apparatus of claim 31, wherein the first explosive element comprises
2 a detonator, the second explosive element comprises a detonating cord, and third explosive
3 element comprises a booster explosive between the detonator and the detonating cord, the
4 booster explosive contacted to the detonator and contacted to the detonating cord.

1 36. (New) An apparatus comprising:
2 one or more housing sections providing a sealed space;
3 a detonator in the sealed space;
4 a booster explosive contacted to the detonator in the sealed space;
5 a detonating cord contacted to the booster explosive, wherein a first portion of the
6 detonating cord is in the sealed space, and a second portion of the detonating cord is outside the
7 sealed space for exposure to the outside pressure; and
8 a gripping mechanism to grip a surface of the detonating cord to maintain a
9 position of the detonating cord in the axial direction of the detonating cord.

1 37. (New) The apparatus of claim 36, wherein the booster explosive is contacted to
2 the detonator without presence of a barrier between the booster explosive and the detonator.